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(71) Applicant (for all designated States except US): **VIRGINIA TECH INTELLECTUAL PROPERTIES, INC.** [US/US]; 1872 Pratt Drive, Suite 1625, Blacksburg, VA 24060 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HARRISON, William** [US/US]; 1170 Blair Street, Christiansburg, VA 24073 (US). **GHASSEMI, Hossein** [IR/US]; 326 Royal Oak Blvd., Richmond Heights, OH 44143 (US). **ZA-WODZINSKI, Tom, A., Jr.** [US/US]; 2920 Warrington Road, Shaker Heights, OH 44120 (US). **MCGRATH, James, E.** [US/US]; 902 Elliott Drive, Blacksburg, VA 24060 (US).

(74) Agents: **WHITHAM, Michael, E.** et al.; Whitham, Curtis & Christofferson, P.C., 11491 Sunset Hills Road, Suite 340, Reston, VA 20190 (US).

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(54) Title: MULTIBLOCK COPOLYMERS CONTAINING HYDROPHILIC-HYDROPHOBIC SEGMENTS FOR PROTON EXCHANGE MEMBRANE

(57) Abstract: Novel multiblock copolymers containing perfluorinated poly(arylene ether) as a hydrophobic segment and disulfonated poly(arylene ether sulfone) as a hydrophilic segment are provided. The multiblock copolymers are used to form proton exchange membranes that are thermally and hydrolytically stable, flexible, and that exhibit low methanol permeability and high proton conductivity. The proton exchange membranes are thus well-suited for use as polymer electrolytes in fuel cells.



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